

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. 10/524,366  
Applicant(s): MEYER, Jürgen et al.  
Filed: February 11, 2005  
TC/A.U. 1755  
Examiner: Patricia L. Hailey  
Title: Silicas

Confirmation No.: 9856

Docket No.: 032301.411  
Customer No.: 25461

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Sir:

**THIRD DECLARATION UNDER 37 C.F.R. 1.132**

I, Jürgen Meyer, being duly advised of the nature and purpose of this declaration hereby declares and states as follows:

I am a co-inventor in this patent application and my C.V. was previously filed on December 6, 2007.

I have been advised that the examiner in the United States Patent and Trademark Office again rejected this application in view of the same references that are discussed in my earlier Declaration.

The claimed invention in this case relates to a pyrogenically produced silica which has been surface modified by treatment with one of two specifically claimed silanes and then subjected to structural modification, as by ball milling, to produce the desired structurally modified silica.

The structural modification is important because the structurally modified silicas when introduced into lacquer compositions, result in scratch resistant coatings with good appearance, when prepared from such lacquers.

Since I am also a co-inventor named in the *Ettlinger, et al.* patent (U.S. 5,665,156) and also in the *Deller, et al.* patent (U.S. 5,776,240) as shown on the first page of each patent, I am completely familiar with and knowledgeable as to the contents of each of these patents which have been relied on by the examiner in the United States Patent and Trademark Office to reject the above-identified patent application.

Based on my comprehensive knowledge of these prior patents, I can state without any limitation that the *Deller, et al.*, and *Ettlinger, et al.*, patents do not disclose or describe a structurally modified silica.

I understand that the Official Action of March 21, 2008 states:

The silanized silicic acids of Ettlinger et al. have properties comparable to those recited in Applicants' claim 7, except for DBP value; however, given that the reference teaches the remaining claimed properties, one skilled in the art would anticipate the silanized silicic acids of Ettlinger et al. to exhibit a comparable DBP value. See Table 2 of Ettlinger et al.

As a person skilled in the art and as a co-inventor on the *Ettlinger, et al.* and *Deller, et al.*, patents, I can state that contrary to the Examiner's statement, I would not have anticipated or expected the silanised silicas of *Ettlinger, et al.* to exhibit DBP values comparable to the DBP values possessed by silicas described in this patent application.

Even though *Ettlinger, et al.*, show that the silicas can be used in a variety of applications, the comparative data in this application shows the superior performance with respect to the scratch resistant coatings of structurally modified silicas in lacquer compositions compared with identical formulations without structurally modified silicas. Those results could not have been predicted from either *Ettlinger* or *Deller*.

The *Ettlinger* and *Deller* patents each contain tables of physical properties for the silicas described in each of these patents. The Examiner has concluded that because the *Deller* and *Ettlinger* ranges of physical properties overlap with ranges disclosed in this application, that the silicas must all be substantially the same.

However, silicas that have been subjected to structural modification will have different properties of tamped density and surface areas, and will exhibit very different properties relating to viscosity when incorporated into liquid lacquers. This is shown by Table 7 of this application which compares silicas that have not been structurally modified with silicas that have been structurally modified as specified by this invention.

It can be seen from Table 7, the viscosity and flow characteristics for structurally modified silicas are quite different from those for silicas that have not been structurally modified (Comparative silicas 1 and 2).

In addition, the structurally modified silicas will improve scratch resistance and reduce haze in coatings as compared to silicas that have not been structurally modified.

Therefore, I conclude that this United States patent application contains data showing that silicas that are structurally modified exhibit unexpectedly improved properties compared to otherwise identical silicas that have not been structurally modified.

I, Jürgen Meyer, hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that

such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Date: 05/20/2008

  
Jürgen Meyer